

Park County 2019 TSEP Grant Application

Bridge Funding and Structure Selection



TREASURE STATE ENDOWMENT PROGRAM
FUNDING AND BRIDGE SELECTION
PUBLIC MEETING
JULY 18, 2019

LIVINGSTON, MONTANA





Today's Agenda



- TSEP Grant Application Process
- Bridge Replacement Candidates
- Public Input for Bridge Selection
- Overall Project Timeline



Application Process



- Maximum Grant (Bridge): \$500,000
- 1:1 Match (cash or in-kind services)
- Applications are scored and ranked on seven criteria:
 1. Health and Safety Needs (1,250 points)
 2. Financial Need (1,000 points)
 3. Design (750 points)
 4. Planning and Management (650 points)
 5. Funding Package (550 points)
 6. Economic Development (450 points)
 7. Community Support (350 points)
- Applications are scored and ranked by MDOC staff and presented to the Legislature in January 2021



Application Process



- **Considerations for a Stronger Application**

1. **Health and Safety Needs (1,250 points)**
 - ✓ Documentation of safety issues (accidents)
 - ✓ Condition ratings
 - ✓ Number of users – is this critical access
2. **Financial Need (1,000 points)**
 - ✓ Millage assessed in proportion to MHI
 - ✓ New or pending changes to economic status of community
3. **Design (750 points)**
 - ✓ Based on evaluation of PER – bridge choice matters
4. **Planning and Management (650 points)**
 - ✓ Planning documents in place and reviewed on a regular basis – CCIP, Growth Policy, Standards, Ongoing maintenance records



Application Process



Grant
Application

- **Considerations for a Stronger Application**
 - 5. **Funding Package (550 points)**
 - ✓ Firm commitment of matching funds – match in excess of 1:1 is encouraged
 - ✓ What sources of funds are available to the County (i.e. PILT, gas tax, impact fees, other)
 - 6. **Economic Development (450 points)**
 - ✓ Stabilize existing business less points than expansion of business – must provide a business plan
 - ✓ Show long term jobs and business expansion
 - 7. **Community Support (350 points)**
 - ✓ At least one public hearing
 - ✓ Letters, petitions, newspaper article, web site information, social media
 - ✓ Environmental Assessment publication and hearing

TSEP Bridge Ranking Criteria



Health and Safety scores are based on the following matrix

TSEP Level	S.R.	Structural Evaluation	Element Condition	Application Strength
5	≤ 50	≤ 2	≤ 2	Strongest
4	≤ 50	3	3 or 4	Strong
3	$50 \leq \text{S.R.} \leq 80$	4	4 or 5	Marginal
2	$50 \leq \text{S.R.} \leq 80$	5	6 or 7	Weak
1	≥ 80	≥ 5	≥ 8	Weak

Park County Bridge Inventory



- Unknown - bridges 20-feet in length and under
 - Ongoing data collection by Park County



- 49 bridges over 20-feet in length
 - Inspection by Montana Department of Transportation



Existing Condition of Park County Bridges



TSEP Level Ranking	Bridges over 20-feet
Level 5	0
Level 4	11
Level 3	19
Level 2	19
Level 1	0
Total	49

Bridge Selection Criteria



1. No bridges under 20-feet in length
 - ✦ Park County is capable of funding small bridge replacement projects
 - ✦ Grant funding is more applicable for large scale projects
2. Structures that rank at a minimum TSEP Level 4
 - ✦ To ensure competitive grant application
3. No structures already programmed for replacement by MDT



This leaves 10 bridges to choose from



Cooke City – Bannock Trail over Woody Creek

- Sufficiency Rating 7.8
- 4-ton load posting
- Structure is sagging from overweight loads
- Advanced decay of foundation
- No detour



Bridge Length: 40 ft
Bridge Width: 11.2 ft





*1 mile East of
Silvergate –
Bannock Trail
over Wyoming
Creek*

- Sufficiency Rating 22.1
- 5-ton load posting
- Significant decay in timber deck
- Corrosion of railroad car superstructure
- No detour



Bridge Length: 40.5 ft
Bridge Width: 12.2 ft





***9 miles East of
Clyde Park –
Rock Creek
Road North
over Rock Creek***

- Sufficiency Rating 25.5
- Not load posted
- 2015 construction
- No documented defects – bank damage upstream & downstream
- 11-mile detour



Bridge Length: 44.5 ft
Bridge Width: 16.33 ft





*Silvergate –
Monument
Avenue over
Soda Butte
Creek*

- Sufficiency Rating 31.4
- 6-ton load posting
- Rust of steel girders
- Scour at both abutments
- 5-mile detour (Per MDT)



Bridge Length: 26 ft
Bridge Width: 17.3 ft





***2 miles South
Wilsall –
Indian Creek
Road over
Shields River***

- Sufficiency Rating 32.8
- 10-ton load posting
- Corrosion throughout steel truss
- Steel column on west abutment splitting
- 12-mile detour



Bridge Length: 75 ft
Bridge Width: 16 ft





***1 mile North
of Wilsall –
Potter Creek
Road over
Potter Creek***

- Sufficiency Rating 33.8
- 10-ton load posting
- Significant decay in timber deck and abutments
- Impact damage to steel truss
- 3-mile detour



Bridge Length: 76 ft
Bridge Width: 15.5 ft





***10 miles South
of Wilsall –
Cottonwood
Bench over
Cottonwood
Creek***

- Sufficiency Rating 36.0
- 6-ton load posting
- Rust and corrosion throughout steel truss
- 10-mile detour



Bridge Length: 61 ft
Bridge Width: 16.5 ft





***3 miles NE of
Wilsall – Elk
Creek Road
over Shields
River***

- Sufficiency Rating 44.9
- 9-ton load posting
- Decay holes in timber deck
- Cracking and delamination in concrete foundation
- 12-mile detour



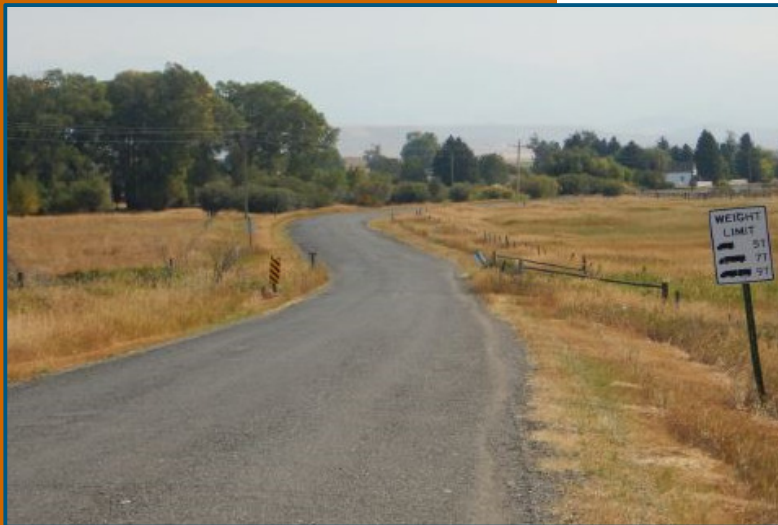
Bridge Length: 64 ft
Bridge Width: 25 ft





***Wilsall –
Horse Creek
Road over
Shields River***

- Sufficiency Rating 46.8
- 5-ton load posting
- Steel girders are deflected
- Timber deck has areas of decay
- 11-mile detour



Bridge Length: 35 ft
Bridge Width: 24 ft





***5 miles NE of
Clyde Park –
Lower
Cottonwood
Road over
Cottonwood
Creek***

Bridge Length: 34 ft
Bridge Width: 20 ft

- Sufficiency Rating 49.1
- 10-ton load posting
- Cracking throughout timber girders
- Scour under south abutment
- 13-mile detour



Decision Matrix for Bridge Selection



- Factors used for Decision Matrix
 - Bridge Sufficiency Rating
 - Road Classification
 - Detour Length



DRAFT Decision Matrix



Criteria Weight (1=Least Important, 3=Crucial)		3	2	1	
Location	Actual Sufficiency Rating	Sufficiency Rating	Road Classification	Detour Length	TOTAL POINTS
		Ranked 1-4	Ranked 1-4 (By County)	Ranked 1-3	
COOKE CITY (Bannock Trail over Woody Creek)	7.8	4	3	3	15.7
1 MILE EAST OF SILVERGATE (Bannock Trail over Wyoming Creek)	22.1	3	3	3	12.7
9 MILES EAST OF CLYDE PARK (Rock Creek Road over Rock Creek)	25.5	3	4	1	10.5
SILVERGATE (Monument Avenue over Soda Butte Creek)	31.4	2	3	2	8.7
2 MILES SOUTH OF WILLSALL (Indian Creek Road over Shields River)	32.8	2	2	1	8.0
1 MILE NORTH OF WILLSALL (Potter Creek Road over Potter Creek)	33.8	2	3	1	7.7
10 MILES SOUTH OF WILLSALL (Cottonwood Bench over Cottonwood Creek)	36	2	4	2	8.5
3 MILES NE OF WILLSALL (Elk Creek Road over Shields River)	44.9	1	1	2	7.0
WILLSALL (Horse Creek Road over Shields River)	46.8	1	1	2	7.0
5 MILES NE OF CLYDE PARK (Cottonwood Road over Cottonwood Creek)	49.1	1	1	2	7.0

Higher points,
but Class 4 road
(seasonal) and
short detour

What do you think?



Additional factors to consider

Needs of the community

Support for replacement

What Steps Do We Take to Complete the Plan?



Finalize PER's

- Evaluating Alternative Solutions
- Environmental Checklist
- Letters to Environmental Agencies
- Public Support

Write Grant & Submit to TESP

- Grant Application Due November 2019
- TSEP Ranking Fall 2020
- Submit to Legislature January 2021
- Funding Anticipated Available July 2021

Final Engineering Design

- Survey
- Final Bridge Design (Fall 2021)
- Construction Bid Process (Anticipated 2022)

Construction

- Construction Administration (Anticipated 2022)
- Construction Inspection



Questions or Comments?



Kathy Thompson, P.E.

406-522-8594

kthompson@seaeng.com

Nate Peressini, P.E.

406-522-8594

nperessini@seaeng.com

